AMENDMENTS TO THE CLAIMS

The following is a complete listing of the claims, which replace all previous versions and listings of the claims.

1. (original) A polymerization process comprising:

polymerizing in a loop reactor having an inner surface, at least one olefin monomer in a liquid medium to produce a fluid slurry comprising solid olefin polymer particles in a liquid medium, wherein said inner surface of said loop reactor has a root mean square surface roughness less than about 120 micro inches.

2. (original) The process of claim 1 wherein said inner surface of said loop reactor has a root mean square surface roughness less than about 110 micro inches.

3. (original) The process of claim 1 wherein said inner surface of said loop reactor has a root mean square surface roughness less than about 90 micro inches.

4. (original) The process of claim 1 wherein said inner surface of said loop reactor has a root mean square surface roughness less than about 70 micro inches.

5. (original) The process of claim 1 wherein said inner surface of said loop reactor has a root mean square surface roughness less than about 50 micro inches.

6. (original) The process of claim 1 wherein said inner surface of said loop reactor has a root mean square surface roughness less than about 30 micro inches.

7. (original) A polymerization process comprising:

a first polymerization step comprising polymerizing in a loop reactor at least one olefin monomer in a liquid medium to produce a first product fluid slurry comprising a liquid medium and solid olefin polymer particles having a melt index less than 0.3 gm/10 min and

a second polymerization step comprising polymerizing in said loop reactor at least one olefin monomer in a liquid medium to produce a second product fluid slurry comprising a liquid medium and solid olefin polymer particles having a melt index greater than 0.4 gm/10 min.

8. (currently amended) The process of claim 7 wherein the solid olefin polymer particles produced in said first polymerization step have a melt index less than 0.2 gm/10 min[[.,]] ~~and the solid olefin polymer particles produced in said second polymerization step have a melt index greater than 0.3 gm/10 min~~.

9. (currently amended) The process of claim 7 wherein the solid olefin polymer particles produced in said first polymerization step have a melt index less than 0.1 gm/10 min[[.,]] ~~and the solid olefin polymer particles produced in said second polymerization step have a melt index greater than 0.3 gm/10 min~~.

10. (original) The process of claim 7 wherein the solid olefin polymer particles produced in said first polymerization step have a melt index less than 0.2 gm/10 min., and the solid olefin polymer particles produced in said second polymerization step have a melt index greater than 0.5 gm/10 min.

11. (original) The process of claim 7 wherein the solid olefin polymer particles produced in said first polymerization step have a melt index less than 0.1 gm/10 min., and the solid olefin polymer particles produced in said second polymerization step have a melt index greater than 0.5 gm/10 min.

12. – 16. (cancelled)

17. (original) The polymerization process of claim 7 wherein said loop reactor has an inner surface, said inner surface having a root mean square surface roughness less than about 120 micro inches.

18. (original) The polymerization process of claim 7 wherein said loop reactor has an inner surface, said inner surface having a root mean square surface roughness less than about 100 micro inches.

19. (original) The polymerization process of claim 7 wherein said loop reactor has an inner surface, said inner surface having a root mean square surface roughness less than about 90 micro inches.

20. (original) The polymerization process of claim 7 wherein said loop reactor has an inner surface, said inner surface having a root mean square surface roughness less than about 70 micro inches.

21. (original) The polymerization process of claim 7 wherein said loop reactor has an inner surface, said inner surface having a root mean square surface roughness less than about 50 micro inches.

22. (original) The polymerization process of claim 7 wherein said loop reactor has an inner surface, said inner surface having a root mean square surface roughness less than about 30 micro inches.